

Atty. Docket No. A7843
PATENT APPLICATION

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/601,384

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Canceled*)

2. (*Currently Amended*) A device for use in association with a multimedia system ~~capable of for capturing and/or reproducing at least audio signals at a multimedia workstation,~~ the device being

A) associated with ~~at least one microphone~~ plurality of microphones and

B) configured to selectively operate to perform one of:

i) ~~perform adaptive acoustic stereo echo-canceling operations~~

(a) ~~on at least one channel of audio signals captured by at least some of the associated microphone,~~ microphones to produce a stereo echo-canceling audio signal; ~~wherein A) the device is i) associated with a plurality of microphones and~~

ii) ~~further configured to have (a) synthetic aperture microphone processing on the audio signals captured by at least some of the associated microphones for producing at least one synthetic aperture microphone audio signal capabilities.~~

3. (*Previously Presented*) The device of claim 2, wherein the adaptive acoustic stereo echo-canceling and synthetic microphone processing capabilities are combined in a single packaging.

4. (*Currently Amended*) A device for use in association with a multimedia system capable of reproducing at least audio signals at a multimedia workstation, the device comprising:

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~~A) being associated with an~~ at least one input for receiving audio signals from a plurality of microphones, and

~~B) including a synthetic aperture microphone processing unit receiving the audio signals from the input and generating therefrom a monoaural microphone signal having a magnitude predominately responsive to amount of audio energy present within at least one designated hot-spot and reduced contribution from audio energy entering from a rejection region capabilities.~~

5. *(Currently Amended)* The device of claim 2, wherein the synthetic aperture microphone processing ~~capabilities include the capability to adjust~~ adjusts a position of a spatial region corresponding to the area of maximum sensitivity of the synthetic aperture microphone function.

6. *(Currently Amended)* The device of claim 2, ~~in combination with a video display, and a plurality of speakers i) in a single unitary housing, wherein said synthetic aperture microphone processing comprises performing at least one of a delay or frequency dispersion operation on the audio signal.~~

7. *(Currently Amended)* The device of claim ~~6~~ 2, ~~wherein the unitary housing includes further comprising A/V elements for audio and video signal reception and transmission capabilities; and audio and video signal encoding and decoding capabilities.~~

8. *(Currently Amended)* The device of claim 6 further ~~including capabilities comprising conversion elements~~ for supporting analog and digital networks for either or both analog or digital audio and video networks.

9. *(Currently Amended)* The device of claim ~~8~~, 6, wherein the A/V elements ~~comprise at least one audio reception capabilities from the group consisting of an analog auxiliary audio capabilities element and a digital auxiliary audio element capabilities.~~

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10. (*Currently Amended*) The device of claim 9, wherein the A/V elements comprise at least one video reception capabilities are from the group consisting of a first video element operable to provide support for a primary digital video stream; and a second video element operable to provide support for an auxiliary digital video stream.

11-49. (*Canceled*)

50. (*Currently Amended*) The device of claim 3, wherein the synthetic aperture microphone processing ~~capabilities include the capability to adjust~~ adjusts a position of a spatial region corresponding to the area of maximum sensitivity of the synthetic aperture microphone function.

51. (*Currently Amended*) The device of claim 4, wherein: the synthetic aperture microphone processing ~~element capabilities include the capability to adjust~~ adjusts a position of a spatial region corresponding to the area of maximum sensitivity of the synthetic aperture microphone function.

52. (*Currently Amended*) The device of claim ~~2-5, in combination with a video display, and a plurality of speakers in a single unitary housing, further comprising a synthetic left microphone model, a synthetic right microphone model, and a signal summing circuit coupled to the left synthetic microphone model and the right synthetic microphone model.~~

53. (*Currently Amended*) The device of claim 52, wherein ~~the unitary housing includes audio and video signal reception and transmission capabilities; and audio and video signal encoding and decoding capabilities. said synthetic aperture microphone processing comprises performing at least one of a delay or a frequency dispersion operation on the audio signal.~~

54. (*Currently Amended*) ~~The A multimedia collaboration device, of claim 7 further including capabilities for supporting analog and digital networks for either or both analog or digital audio and video networks, comprising:~~

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a video input configured for receiving video signal;

an audio input for receiving audio signals from a plurality of microphones;

a synthetic aperture microphone processing unit receiving the audio signals from the audio input and generating therefrom a monoaural microphone signal having a magnitude responsive to amount of audio energy present within at least one designated hot-spot and reduced contribution from audio energy entering from a rejection region.

55. (*Currently Amended*) The device of claim 54, wherein the audio signals comprise at least one reception capabilities from the group consisting of an analog auxiliary audio capabilities signal and a digital auxiliary audio signal capabilities.

56. (*Currently Amended*) The device of claim 55, ~~wherein A) the~~ further comprising A/V transceiver for video reception capabilities are from the group consisting for at least one of support for a primary digital video stream; and support for an auxiliary digital video stream.

57. (*Currently Amended*) The device of claim ~~2~~ 54 further including means for coupling said device to at least one of analog and digital audio and video networks, and means comprising a network port for coupling said device to a workstation.

58. (*Currently Amended*) The device of claim ~~54-7~~, wherein the device further includes, ~~and the housing further encloses,~~ comprises a network port configured means for supporting analog and digital networks for both transporting analog and or digital audio and analog or digital video signals networks.

59. (*Currently Amended*) The device of claim 58, wherein the network port means for supporting is operative to provide audio reception capabilities from the group consisting of

- i) analog auxiliary audio capabilities and
- ii) digital auxiliary audio capabilities.

60. (*Currently Amended*) The device of claim 59, wherein the network port means for supporting is operative to provide video reception capabilities are from the group consisting of

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- i) ~~support for~~ a primary digital video stream; and
- ii) ~~support for~~ an auxiliary digital video stream.

61. (New) The device of claim 54, wherein said synthetic aperture microphone processing unit comprises:

- a synthetic left microphone model;
- a synthetic right microphone model; and
- a signal summing circuit coupled to the left synthetic microphone model and the right synthetic microphone model.

62. (New) The device of claim 54, wherein said synthetic aperture microphone processing unit performs at least one of a delay or frequency dispersion operation on the audio signal.

63. (New) The device of claim 2, wherein each of the stereo echo-canceling audio signal and the synthetic aperture microphone audio signal are produced from the same microphone signals.

64. (New) A multimedia collaboration device, comprising:

- a video input configured for receiving video signal;
- an audio input for receiving audio signals from a plurality of microphones; and
- a synthetic aperture microphone processing unit receiving the audio signals captured by at least some of the microphones and producing therefrom at least one synthetic aperture microphone audio signal.

65. (New) The device of claim 64, wherein said synthetic aperture microphone processing unit comprises:

- a synthetic left microphone model;
- a synthetic right microphone model; and
- a signal summing circuit coupled to the synthetic left microphone model and the right synthetic microphone model.

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66. (New) The device of claim 64, wherein said synthetic aperture microphone processing unit performs at least one of a delay or a frequency dispersion operation on the audio signal.